Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12. (Canceled)

13. (Previously Presented) A signal traffic routing method for a signaling network, comprising:

receiving a signal message at a signal transfer point, analyzing a routing label of the received message, and determining the final destination;

analyzing whether the final destination of the received signal message is a local system based on a result of the analysis;

transferring the received signal message to a message routing unit when the final destination is not the local system;

setting a signal route for transferring the signal message using a Signaling Link Selection of the routing label;

selecting a link for the signal message from the link set of the set route using link determination history and link determination data; and

updating the link determination history data based on the selected link, wherein selecting the link comprises:

checking the link determination history to determine whether the signal message is to be routed based on the same Signal Link Selection as a previous Signal Link Selection and routing the signal message through the corresponding link from the link determination history when the signal message has been previously routed using the same Signal Link Selection; and

routing the signal message through a next available link excluding the link from the link determination history when the signal message has not been previously routed using the same Signal Link Selection.

- 14. (Previously Presented) The method of claim 13, wherein the method is performed by a message transfer unit comprising a message discriminating unit, a message distributing unit, and the message routing unit.
 - 15. (Original) The method of claim 13, wherein said routing label comprises:a signaling link selection bit;an originating point code; anda destination point code.

- 16. (Previously Presented) The method of claim 13, further comprising: transferring the received signal message to a user part when the final destination of the received signal message is a local system.
 - 17. (Canceled)
- 18. (Currently Amended) The method of claim 13, wherein <u>the</u> link determination history comprises a variable representing that a signal message having a corresponding label is routed through a corresponding link, and said link determination data comprises a variable representing an available link used when determining the next link.
- 19. (Previously Presented) The method of claim 13, wherein the method is performed by a message transfer unit comprising:
- a message distributing unit that transfers a signal message to a user part of the local system;
- a message discriminating unit that analyzes a message received from a message transfer unit and checks whether a final destination of the message is a local system; and
- the message routing unit which routes the message to a route connected with a neighboring signal transfer point to transfer the message to the final destination.

Serial No. 09/518,695 Reply to Office Action of December 2, 2004

Docket No. P-0053

20-24. (Canceled).